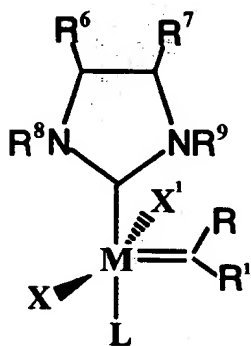


**In the Claims:**

Please add claims 41 – 64 as follows:

41. The method of Claim 32 wherein the olefin is cyclic or acyclic.
42. The method of Claim 32 wherein the olefin bears at least one electron withdrawing group.
43. The method of Claim 42 wherein the electron withdrawing group is selected from the group consisting of esters, aldehydes, ketones, and phosphonates.
44. The compound of Claim 1 wherein at least one moiety selected from the group consisting of L, R, R<sup>1</sup>, X and X<sup>1</sup> is linked with at least one other moiety selected from the group consisting of L, R, R<sup>1</sup>, X and X<sup>1</sup>, to form a bonded ligand array.
45. A composition comprising:
- (a) a compound of the formula



wherein:

M is Ru or Os;

X and X<sup>1</sup> are each independently an anionic ligand;

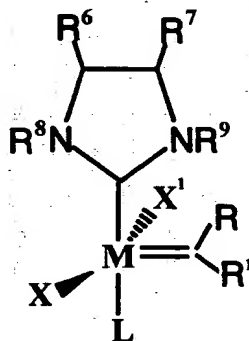
L is a neutral electron donor ligand; and

R, R<sup>1</sup>, R<sup>6</sup>, R<sup>7</sup>, R<sup>8</sup> and R<sup>9</sup> are each independently hydrogen or a substituent selected from the group consisting of C<sub>1</sub>-C<sub>20</sub> alkyl, C<sub>2</sub>-C<sub>20</sub> alkenyl, C<sub>2</sub>-C<sub>20</sub> alkynyl, aryl, C<sub>1</sub>-C<sub>20</sub> carboxylate, C<sub>1</sub>-C<sub>20</sub> alkoxy, C<sub>2</sub>-C<sub>20</sub> alkenyloxy, C<sub>2</sub>-C<sub>20</sub> alkynyloxy, aryloxy, C<sub>2</sub>-C<sub>20</sub> alkoxy carbonyl, C<sub>1</sub>-C<sub>20</sub> alkylthiol, aryl thiol, C<sub>1</sub>-C<sub>20</sub> alkylsulfonyl and C<sub>1</sub>-C<sub>20</sub> alkylsulfinyl, the substituent optionally substituted with one or more moieties selected from the group consisting of C<sub>1</sub>-C<sub>10</sub> alkyl, C<sub>1</sub>-C<sub>10</sub> alkoxy, aryl, and a functional group selected from the group consisting of hydroxyl, thiol, thioether, ketone, aldehyde, ester, ether, amine, imine, amide, nitro, carboxylic acid, disulfide, carbonate, isocyanate, carbodiimide, carboalkoxy, carbamate, and halogen; and

(b) an unsaturated carbonyl compound.

46. The composition of Claim 45 wherein the carbonyl compound is conjugated.
47. The composition of Claim 45 wherein (b) is selected from the group consisting of ketones, aldehydes, amides, and carboxylic acids.
48. The composition of Claim 45 wherein (b) is an acrylate.

49. The composition of Claim 45 wherein (b) is methyl methacrylate.
50. The composition of Claim 45 wherein M is Ru, X and X<sup>1</sup> are each Cl, L is a phosphine of the formula PR<sup>3</sup>R<sup>4</sup>R<sup>5</sup>, where R<sup>3</sup>, R<sup>4</sup>, and R<sup>5</sup> are each independently aryl, C<sub>1</sub>-C<sub>10</sub> alkyl, or cycloalkyl; R is hydrogen and R<sup>1</sup> is substituted or unsubstituted phenyl or vinyl; and the unsaturated carbonyl compound is an acrylate.
51. The compound of claim 1, wherein L is bonded together with one of X and X<sup>1</sup> to form a bidentate ligand.
52. The compound of claim 1, wherein L is bonded together with one of R and R<sup>1</sup> are bonded together to form a bidentate ligand.
53. The compound of claim 1, wherein R and R<sup>1</sup> are bonded together.
54. A compound of the formula



wherein:

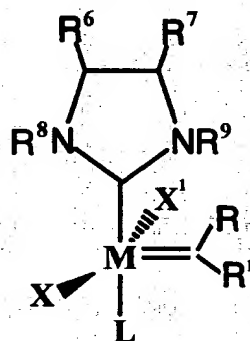
- M is ruthenium or osmium;
- X and X<sup>1</sup> are each independently an anionic ligand;
- L is a neutral electron donor ligand;
- R, R<sup>1</sup>, R<sup>6</sup>, R<sup>7</sup>, R<sup>8</sup> and R<sup>9</sup> are each independently hydrogen or a substituent selected from the group consisting of C<sub>1</sub>-C<sub>20</sub> alkyl, C<sub>2</sub>-C<sub>20</sub> alkenyl, C<sub>2</sub>-C<sub>20</sub> alkynyl, aryl, C<sub>1</sub>-C<sub>20</sub> carboxylate,

C<sub>1</sub>-C<sub>20</sub> alkoxy, C<sub>2</sub>-C<sub>20</sub> alkenyloxy, C<sub>2</sub>-C<sub>20</sub> alkynyloxy, aryloxy, C<sub>2</sub>-C<sub>20</sub> alkoxy carbonyl, C<sub>1</sub>-C<sub>20</sub> alkylthiol, aryl thiol, C<sub>1</sub>-C<sub>20</sub> alkylsulfonyl and C<sub>1</sub>-C<sub>20</sub> alkylsulfinyl, the substituent optionally substituted with one or more moieties selected from the group consisting of C<sub>1</sub>-C<sub>10</sub> alkyl, C<sub>1</sub>-C<sub>10</sub> alkoxy, aryl, and a functional group selected from the group consisting of hydroxyl, thiol, thioether, ketone, aldehyde, ester, ether, amine, imine, amide, nitro, carboxylic acid, disulfide, carbonate, isocyanate, carbodiimide, carboalkoxy, carbamate, and halogen; and

at least one moiety selected from the group consisting of L, R, R<sup>1</sup>, X and X<sup>1</sup> is linked with at least one other moiety selected from the group consisting of L, R, R<sup>1</sup>, X and X<sup>1</sup>, to form a bonded ligand array.

55. The method of claim 23, wherein at least one moiety selected from the group consisting of L, R, R<sup>1</sup>, X, and X<sup>1</sup> is linked with at least one other moiety selected from the group consisting of L, R, R<sup>1</sup>, X and X<sup>1</sup>, to form a bonded ligand array.
56. The method of claim 23, wherein L is bonded together with one of X and X<sup>1</sup> to form a bidentate ligand.
57. The method of claim 23, wherein L is bonded together with of R and R<sup>1</sup> to form a bidentate ligand.
58. The method of claim 23, wherein R and R<sup>1</sup> are bonded together.
59. The method of claim 32, wherein at least one moiety selected from the group consisting of L, R, R<sup>1</sup>, R<sup>8</sup>, R<sup>9</sup>, X and X<sup>1</sup> is linked with at least one other moiety selected from the group consisting of L, R, R<sup>1</sup>, R<sup>8</sup>, R<sup>9</sup>, X and X<sup>1</sup>, to form a bonded, bidentate, or multidentate ligand array.
60. The method of claim 32, wherein L is bonded together with one of X and X<sup>1</sup> are bonded together to form a bidentate ligand.

61. The method of claim 32, wherein L is bonded together with one of R and R<sup>1</sup> to form a bidentate ligand.
62. The method of claim 32, wherein R and R<sup>1</sup> are bonded together.
63. A method for synthesizing a cyclic olefin by ring-closing metathesis, the method comprising the step of contacting an acyclic olefin with a compound of the formula



wherein:

M is Ru or Os;

X and X<sup>1</sup> are each independently an anionic ligand;

L is a neutral electron donor ligand; and

R, R<sup>1</sup>, R<sup>6</sup>, R<sup>7</sup>, R<sup>8</sup> and R<sup>9</sup> are each independently hydrogen or a substituent selected from the group consisting of C<sub>1</sub>-C<sub>20</sub> alkyl, C<sub>2</sub>-C<sub>20</sub> alkenyl, C<sub>2</sub>-C<sub>20</sub> alkynyl, aryl, C<sub>1</sub>-C<sub>20</sub> carboxylate, C<sub>1</sub>-C<sub>20</sub> alkoxy, C<sub>2</sub>-C<sub>20</sub> alkenyloxy, C<sub>2</sub>-C<sub>20</sub> alkynyloxy, aryloxy, C<sub>2</sub>-C<sub>20</sub> alkoxycarbonyl, C<sub>1</sub>-C<sub>20</sub> alkylthiol, aryl thiol, C<sub>1</sub>-C<sub>20</sub> alkylsulfonyl and C<sub>1</sub>-C<sub>20</sub> alkylsulfinyl, the substituent optionally substituted with one or more moieties selected from the group consisting of C<sub>1</sub>-C<sub>10</sub> alkyl, C<sub>1</sub>-C<sub>10</sub> alkoxy, aryl, and a functional group selected from the group consisting of hydroxyl, thiol, thioether, ketone, aldehyde, ester, ether, amine, imine, amide, nitro, carboxylic acid, disulfide, carbonate, isocyanate, carbodiimide, carboalkoxy, carbamate, and halogen.

64. The method of claim 58 wherein the acyclic olefin is a C<sub>5</sub>-C<sub>60</sub> acyclic olefin.